

**IN THE UNITED STATES DISTRICT COURT
FOR THE MIDDLE DISTRICT OF PENNSYLVANIA**

BRIANNA APFELBAUM KULA, *et al.*,

Plaintiffs,

v.

UNITED STATES OF AMERICA,

Defendant.

No. 4:17-CV-02122

(Judge Brann)

FINDINGS OF FACT AND CONCLUSIONS OF LAW

MAY 18, 2021

This case arises from an aircraft accident resulting in the deaths of Michael Apfelbaum, Christina Apfelbaum, and Charles Imgrund. Plaintiffs brought this wrongful death suit alleging that the United States negligently caused Michael and Christina Apfelbaum's deaths. A bench trial commenced on May 10, 2021. On May 14, 2021, after Plaintiffs presented their case-in-chief on the question of liability, the United States moved for an entry of judgment on partial findings under Federal Rule of Civil Procedure 52(c).

After considering the evidence presented, the Court finds judgment under Rule 52(c) appropriate. The Government's motion is therefore **GRANTED**. The Court's findings of fact and conclusions of law, as required by Rule 52(a), are set forth below.

I. FINDINGS OF FACT

A. Definitions and Background

1. Instrument Meteorological Conditions (“IMC”) are weather conditions that require pilots to fly primarily by reference to instruments. Clouds or fog or any conditions where a pilot is unable to see surrounding geography constitute IMC. Pilots flying in IMC are subject to Instrument Flight Rules. Pursuant to these rules, a pilot flying in IMC must be instrument current, which requires pilots to satisfy specific criteria.

2. Visual Flight Rules (“VFR”) are the rules governing pilots when operating aircraft under visual conditions. In contrast to IMC, visual conditions exist where a pilot can make visual reference to geography and other objects within their line of sight.

3. An Instrument Landing System (“ILS”) is a tool which allows aircraft to land at an airport in instrument conditions. In this system, two radio beams are emitted which indicate the location of the runway and the angle at which a pilot must fly to safely approach. The area between these two beams is called the localizer, and the halfway line between these beams is called the localizer centerline. To make a final approach (land), a pilot must first locate and fly (be established) on the localizer centerline. When a pilot enters the localizer (by crossing one of the two beams), a plane’s HSI “needle” will start moving to the center of the HSI instrument as the pilot gets closer to the localizer centerline. The

HSI needle reaches the center of the instrument when the pilot is established on the localizer centerline.

4. A heading is the direction in which an aircraft is pointed. A heading may also be referred to as a vector. Air-traffic controller provide headings, or vectors, to guide aircraft as they approach.

5. A track is the path which an aircraft actually follows. The track is determined by how the aircraft actually moves throughout the air and is often impacted by wind speed and direction. For example, a plane flying on a certain heading may have a flight track that deviates from the heading based on wind or other conditions.

6. A radar replay or radar scope is a tool used by air-traffic controllers to view aircraft within a specific area. The radar replay used by air-traffic controller Kendall Garland showed white lines demonstrating fixed areas on the radar, such as the location of the airport, and the localizer.¹ Non-fixed objects, such as aircraft, appear as blinking green dots that update approximately every 4.8 seconds.² These dots show only where an aircraft's present location is, not the track that the aircraft has followed. As a result, the only way for a person viewing the radar replay to determine a plane's track is to follow the plane's radar location and visually evaluate the plane's actual path.

¹ Tr. (May 10, 2021) at 52:5-12.

² *Id.* at 224:12-15.

B. The Accident

7. On September 7, 2015, Michael Apfelbaum, his wife Christina Apfelbaum, and his father-in-law Charles Imgrund perished when a Beechcraft A36 Bonanza airplane, registration number N36HT (N-36-Hotel-Tango) crashed after attempting an instrument approach at the Piedmont Triad International Airport in Greensboro, North Carolina.

8. At the time of the crash, Michael Apfelbaum was the pilot in command of the Bonanza. Christina Apfelbaum and Charles Imgrund were passengers.

9. The crash occurred during a flight from Sarasota, Florida to Greensboro, North Carolina. Apfelbaum had planned to stop at Greensboro for fuel before continuing to Northumberland, Pennsylvania.

10. Kendall Garland was the air-traffic controller at the Piedmont Airport responsible for facilitating Apfelbaum's approach.

11. At 1544:00Z (11:44:00 local time), Apfelbaum initiated contact with Garland.³

12. At 1548:08Z, Apfelbaum told Garland that he was "about to go IMC." Apfelbaum shortly thereafter entered instrument conditions.⁴

³ For purposes of consistency, the Court uses Zulu time (more commonly known as "Greenwich Mean Time") when discussing the events that occurred in this case.

⁴ Tr. (May 12, 2021) at 176:17-19.

13. At 1548:39Z, Garland instructed Apfelbaum to turn to a heading of 010 (ten degrees). Apfelbaum confirmed and accepted this heading.

14. At 1550:35Z, Garland told Apfelbaum to turn right to a heading of 020 and to maintain an altitude of 3,000 feet until he could become established on the localizer. Garland also gave Apfelbaum clearance for an approach. Plaintiffs' air-traffic controller expert, Richard Burgess, testified that this was an inappropriate heading because it would have forced Apfelbaum to turn onto the localizer at an angle greater than 30 degrees.⁵

15. At 1552:48Z, Apfelbaum asked Garland "how do you like this route of flight."

16. At 1552:52Z, Garland responded by saying that Apfelbaum looked a "little bit right of course" and that he should turn to a heading of 360. At this point, Apfelbaum was near or on the edge of the localizer.⁶ Garland believed at the time that Apfelbaum was flying parallel to the localizer, and thus would not be able to intercept it by flying straight.⁷ Garland's objective evaluation is somewhat contradicted by testimony from Plaintiffs' radar-reconstruction expert, Robert Cauble, who testified that Apfelbaum would have in fact intercepted the localizer had he simply been directed to make a 5-degree turn.⁸

⁵ Tr. (May 11, 2021) at 140:6-19.

⁶ Tr. (May 10, 2021) at 194:5-23.

⁷ *Id.* at 83:9-12.

⁸ *Id.* at 88:11-15

17. In issuing Apfelbaum a heading of 360, Garland apparently did not intend to give Apfelbaum a second vector for final approach because he believed that giving Apfelbaum such a vector would be illegal.⁹ Burgess confirmed that doing so would have been inappropriate,¹⁰ however, he opined that Garland should have informed Apfelbaum that he would not be receiving a final vector at that time as it could be confusing.¹¹ But Burgess also acknowledged that “[h]ow that affected the pilot, I guess we’ll never know.”¹²

18. At 1553:59Z, Garland asked Apfelbaum if he was established on the localizer, to which Apfelbaum responded that he was and requested a vector for final approach.

19. At 1554:07Z, Garland again asked Apfelbaum if he was established on the localizer. Apfelbaum replied that he believed he was. At the time, Garland was aware that Apfelbaum was not established on the localizer.¹³ Garland also did not give Apfelbaum a vector for final approach because, as previously discussed, he believed that would result in an illegal turn.¹⁴

⁹ *Id.* at 83:13-21.

¹⁰ Tr. (May 11, 2021) at 138:17-139:6; 146:8-11.

¹¹ *Id.* at 147:13-25; 160:12-161:4.

¹² *Id.* at 161:3-4.

¹³ Tr. (May 10, 2021) at 86:9-23.

¹⁴ *Id.* at 88:11-15.

20. At 1554:13Z, Garland told Apfelbaum that it appeared Apfelbaum had passed through the localizer. Apfelbaum then requested a vector for final approach, and Garland directed Apfelbaum to turn left at a heading of 320.

21. At 1556:54Z, Garland directed Apfelbaum to turn left at a heading of 230. Apfelbaum confirmed.

22. At 1557:29Z, after it appears Apfelbaum made a loop, Garland asked Apfelbaum to confirm that he was on a 230 heading. It does not appear that Garland was aware that Apfelbaum had made a loop.

23. At 1557:35Z, Apfelbaum responded “negative and three six hotel tango is close to.” The feed cutoff after Apfelbaum said “close to.” Garland did not follow up to confirm what Apfelbaum meant or to ask what Apfelbaum was close to.¹⁵ Garland did not appear to have read much into Apfelbaum’s statement; he testified that he believed Apfelbaum might have been trying to say that he was not on the 230 heading, but was perhaps close to it.¹⁶ Burgess testified that a reasonable air-traffic controller would have asked Apfelbaum to clarify what he was close to.¹⁷

24. At 1557:57Z, Garland informed Apfelbaum to stay at an altitude of 3,000, and informed him that Apfelbaum appeared to be at an altitude of 2,500. Apfelbaum responded that he would then “climb to three.” Burgess testified that a

¹⁵ *Id.* at 116:7-17.

¹⁶ *Id.* at 116:15-17.

¹⁷ Tr. (May 11, 2021) at 158:14-17.

500-foot deviation in altitude, combined with Apfelbaum's previous statement that he was not on the 230 heading, would be concerning to a reasonable air-traffic controller.¹⁸

25. At 1558:40Z, Garland stated that the altimeter showed Apfelbaum was at an altitude of 2,900, and asked Apfelbaum if that was correct. Apfelbaum responded that it was.

26. At 1559:17Z, after Apfelbaum makes what appears to be an almost 180-degree turn, Garland asked Apfelbaum to confirm his heading. Apfelbaum responded that his heading was 166. Apfelbaum also indicated that he was at an altitude of 2,700 feet and stated that "we need a descent we are almost disoriented." Burgess testified that this was "absolutely an emergency," and that a reasonable air-traffic controller would have believed it to be one as well.¹⁹ Burgess cited Apfelbaum's previous statement that he was not on the 230 heading Garland had given him, Apfelbaum's inability to maintain altitude, and the statement that Apfelbaum was almost disoriented as establishing an emergency situation.²⁰

27. The air-traffic controller training handbook briefly discusses unusual situations and how air-traffic controllers should address them.²¹ It appears to briefly explore the topic of spatial disorientation and how it is a result of what

¹⁸ *Id.* at 159:16-22.

¹⁹ Tr. (May 11, 2021) at 163:23-164:9.

²⁰ *Id.*

²¹ *Id.* 167:9-11.

occurs in a pilot's inner ears.²² It also addresses the specific situation where a VFR pilot enters into instrument conditions.²³

28. At 1559:35Z, Garland asked Apfelbaum if he could accept a no-gyro turn. A no-gyro turn requires the air-traffic controller to verbally tell a pilot to initiate a turn in a particular direction (either left or right).²⁴ After being directed to turn, the pilot is supposed to make a standard-rate turn in that direction until he is told to stop.²⁵ No-gyro turns are generally used when an aircraft's vacuum pump is not working properly; when this occurs, an aircraft's instruments may not be reading correctly or functioning in an adequate manner.²⁶ Here, however, Apfelbaum had not told Garland that he was suffering from a vacuum-pump issue.²⁷ Nevertheless, Garland offered him this turn to help Apfelbaum descend.²⁸ Apfelbaum responded "we can accept."

29. Burgess offered testimony suggesting that, at this point, Garland should have been aware that Apfelbaum was spatially disoriented and should have attempted to help Apfelbaum ascend to a higher altitude and out of the clouds.²⁹ Burgess's testimony on whether Garland should have known that Apfelbaum was

²² *Id.* at 167-15:18.

²³ *Id.* at 167:20-23.

²⁴ *Id.* at 169:1-7.

²⁵ *Id.* at 169:8-15.

²⁶ *Id.* at 168:8-14.

²⁷ *Id.* at 168:15-18.

²⁸ Tr. (May 10, 2021) at 148:14-23.

²⁹ Tr. (May 11, 2021) at 174:23-172:4.

spatially disoriented is undercut by the fact that Burgess is not an expert on spatial disorientation and did not offer any explanation as to why he believed Apfelbaum was spatially disoriented.

30. At 1559:43Z, Garland told Apfelbaum to initiate the no-gyro turn by turning left. He did not, however, tell Apfelbaum when to stop the turn. Garland did not inform Apfelbaum when to cease turning because Apfelbaum had already exited the turn and was going in the direction Garland wanted him to go.

31. At 1559:59Z, Garland asked if Apfelbaum could maintain an altitude of at least 2,500 feet.

32. At 1600:16Z, Garland told Apfelbaum to turn right. Again, Garland did not tell Apfelbaum when to stop turning right.

33. At 1600:47Z, Garland informed Apfelbaum of a “low altitude alert,” and asked Apfelbaum to state his altitude. Apfelbaum did not respond.

34. At 1601:24Z, while Apfelbaum was half-way through a third loop, Garland told Apfelbaum to climb and maintain an altitude of 4,000 and stated that he would see if he could get Apfelbaum above the clouds.

35. At 1601:35Z, Garland asked if Apfelbaum was “up,” and that the last altitude showed Apfelbaum was at a height of 2,100 feet.

36. At 1601:41Z, Apfelbaum replied “three six hotel tango.” Garland shortly thereafter asked Apfelbaum to climb to an altitude of 4,000 feet.

37. The Apfelbaum plane crashed approximately a minute and a half later.

38. At no point did Apfelbaum explicitly inform Garland that he was in an emergency situation or use terms such as “Mayday” or “Pan-Pan” that would unambiguously signal an emergency to Garland.

39. Testimony from Plaintiffs’ aviation accident reconstruction expert, Colin Sommer, established that the crash was not caused by an engine, vacuum-pump (instrument), control system, or electrical failure.³⁰ Sommer also determined that he could not rule out spatial disorientation as a cause of the crash.³¹ The Court agrees with Sommer’s findings that the crash was not caused by an engine, vacuum-pump, or electrical failure. The Court also determines that spatial disorientation has not been ruled out as a causal factor.

40. However, because Plaintiffs’ spatial disorientation expert was found to be unreliable and thus precluded from offering testimony at trial, the Court finds that it cannot be established that Apfelbaum was actually spatially disoriented at the time of the crash. Without expert testimony on this issue, the Court has no basis for finding that Apfelbaum was spatially disoriented, when he became spatially disoriented, or how spatial disorientation impacted his ability to fly the Bonanza. While Apfelbaum’s statement at 1559:17Z that he was “almost disoriented” shows that he may have been or was about to be disoriented in some fashion, the Court cannot conclude that this is sufficient to show that Apfelbaum

³⁰ Tr. (May 13, 2021) at 162:5-7, 166:9-10, 208:8-10.

³¹ *Id.* at 210:23-24.

was *spatially* disoriented. Moreover, no testimony or evidence was offered explaining how an air-traffic controller should respond when discovering that a pilot is spatially disoriented.

41. Evidence was, however, introduced by Plaintiffs' witnesses regarding Apfelbaum's ability to fly the Bonanza in instrument conditions. Plaintiffs' piloting expert, Mark Fruchter, testified that "we don't know" if Apfelbaum flew the six instrument approaches in the year prior to the crash necessary to satisfy Apfelbaum's instrument currency requirements.³² Fruchter also testified that, based on Apfelbaum's logbooks, it does not appear that Apfelbaum was current.³³ He further testified that instrument currency "impacts safety" and "is required by the federal aviation regulations."³⁴

42. While there is evidence that Apfelbaum had safely piloted the Bonanza in instrument conditions before,³⁵ one of Apfelbaum's friends (and a fellow pilot) testified that he had previously expressed concerns about Apfelbaum making the trip from Florida to Pennsylvania if he were to encounter instrument conditions.³⁶ Apfelbaum's flight instructor also indicated that he had warned

³² Tr. (May 12, 2021) at 30:14-18.

³³ *Id.*

³⁴ *Id.* at 42:7-9.

³⁵ Tr. (May 13, 2021) at 9:25-10:3.

³⁶ *Id.* at 24:8-13.

Apfelbaum not to fly the Bonanza in instrument conditions until he had gained more experience with it.³⁷

II. CONCLUSIONS OF LAW

A. Standard of Review

43. The Court has jurisdiction over this action pursuant to the Federal Tort Claims Act (“FTCA”).³⁸ The FTCA permits individuals to seek compensation for tort claims against the United States “in the same manner and to the same extent as a private individual under like circumstances.”³⁹ The Court applies “the law of the place where the act or omission occurred,” which is, in this case, the law of North Carolina.⁴⁰

44. Actionable negligence in North Carolina is the “failure to exercise that degree of care which a reasonable and prudent person would exercise under similar conditions.”⁴¹ A plaintiff establishes negligence against the defendant when she shows: “(1) the defendant owed the plaintiff a duty of care; (2) the defendant’s conduct breached that duty; (3) the breach was the actual and proximate cause of the plaintiff’s injury; and (4) plaintiff suffered damages as a result of the injury.”⁴²

³⁷ Tr. (May 12, 2021) at 32:19-23.

³⁸ 28 U.S.C. §§ 1346(b), 2671-80.

³⁹ 28 U.S.C. § 2674.

⁴⁰ 28 U.S.C. § 1346(b)(1).

⁴¹ *Hart v. Ivey*, 420 S.E.2d 174, 177-78 (N.C. 1992).

⁴² *Hamby v. Thurman Timber Co., LLC*, 818 S.E.2d 318, 323 (N.C. App. 2018) (citing *Wallen v. Riverside Sports Ctr.*, 618 S.E.2d 858, 861 (N.C. App. 2005)).

45. **Duty:** An air-traffic controller's legal duties are largely defined by the FAA Air Traffic Control Order 7110.65⁴³ and state common law.⁴⁴ Order 7110.65 sets forth procedural requirements with which all air-traffic controllers must comply. Common law may further impose duties beyond those set forth in Order 7110.65.

46. Examples of duties contained in Order 7110.65 include the requirements that air-traffic controllers "assign headings that will permit final approach course interception on a track that does not exceed the interception angle of 30 degrees"⁴⁵ and inform pilots when to both start and stop turning when attempting a no-gyro turn.⁴⁶ Order 7110.65 also discusses the process of declaring an emergency, however, it does not set forth specific procedures governing air-traffic controller conduct in every type of emergency.⁴⁷ Rather, it gives pilots discretion to determine when an emergency exists, and authorizes controllers to "select and pursue a course of action which appears to be most appropriate under the circumstances and which most clearly conforms" to Order 7110.65.⁴⁸

47. Common law also establishes additional duties above and beyond what is required by Order 7110.65. For example, courts have recognized a duty to

⁴³ *Rodriguez v. United States*, 823 F.2d 735, 740 (3d Cir. 1987).

⁴⁴ *In re Greenwood Air Crash*, 924 F. Supp. 1518, 1538 (S.D. Ind. 1995).

⁴⁵ J.O. 7110.65 ¶ 5-9-2.

⁴⁶ *Id.* ¶ 5-10-3.

⁴⁷ *Id.* ¶ 10-1-1.

⁴⁸ *Id.*

issue warnings to pilots where a controller (1) has access to information not available to the pilot⁴⁹; (2) is aware the pilot is about to encounter an immediate and extreme danger⁵⁰; (3) is better qualified to make a determination⁵¹; or (4) is faced with dangers “reasonably apparent to him” of which the pilot is not aware.⁵² Air-traffic controllers also have a duty “to issue all warnings that reasonable [air-traffic controllers] would issue under the same circumstance.”⁵³

48. Nevertheless, “[p]ilots and air traffic controllers ‘are burdened with concurrent duties of care for the protection of the aircraft and its occupants.’”⁵⁴ “Necessarily, the pilot’s knowledge of his own, his crew’s, and his aircraft’s capabilities and limitations, is of preeminent importance in this cooperative situation.”⁵⁵ This is because “none of these matters can be known” by air-traffic control.⁵⁶ Moreover, air-traffic controllers are not expected “to get into the cockpit and fly the plane for the pilot,” nor are they “presumed to have X-ray vision and extrasensory perception.”⁵⁷

⁴⁹ *Hochrein v. United States*, 238 F. Supp. 317, 319-20 (E.D. Pa. 1965) (air-traffic controller was negligent in failing to advise a pilot of another aircraft which had repeatedly failed to comply with the air-traffic controller’s signals and directions).

⁵⁰ *United States v. Furumizo*, 381 F.2d 965, 968 (9th Cir. 1967).

⁵¹ *Hartz v. United States*, 387 F.2d 870, 873 (5th Cir. 1968).

⁵² *Springer v. United States*, 641 F. Supp. 913, 935 (D.S.C. 1986).

⁵³ *In re Greenwood Air Crash*, 873 F Supp. 1257, 1265 (S.D. Ind. 1995).

⁵⁴ *Turner v. United States*, 736 F. Supp. 2d 980, 1000 (M.D.N.C. 2010) (citations omitted).

⁵⁵ *Id.* (citations omitted).

⁵⁶ *Id.*

⁵⁷ *Badilla v. Nat’l Air Cargo Inc.*, 433 F. Supp. 3d 428, 442 (W.D.N.Y. 2020) (internal quotation marks and citations omitted).

49. In general, “[t]he pilot in command of an aircraft is directly responsible for, and is the final authority as to, the operation of that aircraft.”⁵⁸ And because the pilot in command “is directly responsible for [the aircraft’s] operation, and has final authority as to its operation . . . He must be aware of those facts which are material to its proper operation and is charged with that which he should have known in the exercise of the highest degree of care.”⁵⁹

50. **Causation:** “Any recovery for wrongful death must be based on actionable negligence under the general rules of tort liability. ‘In a case involving an airplane crash . . . there must be a causal connection between the negligence complained of and the injury inflicted.’”⁶⁰ “Proximate cause is a cause which in natural and continuous sequence, unbroken by any new and independent cause, produced the plaintiff’s injuries, and without which the injuries would not have occurred.”⁶¹

51. **Contributory Negligence:** Under North Carolina law, contributory negligence is a complete bar to a plaintiff’s recovery.⁶² A plaintiff is contributorily

⁵⁸ 14 C.F.R. § 91.3.

⁵⁹ *Redhead v. United States*, 686 F.2d 178, 182 (3d Cir. 1982) (citations omitted).

⁶⁰ *Haley v. United States*, 654 F. Supp. 481, 484 (W.D.N.C. 1987) (quoting *Mann v. Henderson*, 134 S.E.2d 626, 629 (N.C. 1964), *aff’d*, 829 F.2d 1120 (4th Cir. 1120)).

⁶¹ *Hairston v. Alexander Tank & Equipment Co.*, 311 S.E.2d 559, 565 (N.C. 1984).

⁶² *Sawyer v. Food Lion, Inc.*, 549 S.E.2d 867, 869 (N.C. Ct. App. 2001).

negligent when he fails to exercise the degree of care which a reasonable and prudent person would exercise under similar conditions to avoid injury.⁶³

52. Contributory negligence will not preclude recovery, however, “when the defendant’s gross negligence, or willful or wanton conduct, is a proximate cause of the plaintiff’s injuries.”⁶⁴ Gross negligence is “wanton conduct done with conscious or reckless disregard for the rights and safety of others.”⁶⁵ An “act is wanton when it is done of wicked purpose, or when done needlessly, manifesting a reckless indifference to the rights of others.”⁶⁶ Gross negligence also may exist where a defendant exhibits “the absence of even slight care,” “indifference to the rights and welfare of others,” and “negligence of an aggravated character.”⁶⁷

53. Further, notwithstanding a plaintiff’s negligence, North Carolina law allows recovery where “‘the defendant’s negligence in failing to avoid the accident introduces a new element into the case, which intervenes between [the] plaintiff’s negligence and the injury and becomes the direct and proximate cause’ of the accident.”⁶⁸

⁶³ *Proffitt v. Gosnell*, 809 S.E.2d 200, 204 (N.C. Ct. App. 2017) (quoting *Cone v. Watson*, 736 S.E.2d 210, 213 (N.C. Ct. App. 2012)).

⁶⁴ *Yancey v. Lea*, 550 S.E.2d 155, 157 (N.C. 2001).

⁶⁵ *Id.*

⁶⁶ *Id.*

⁶⁷ *Morgan v. Cavalier Acquisition Corp.*, 432 S.E.2d 915, 924 (N.C. Ct. App. 1993) (internal citations omitted).

⁶⁸ *Outlaw v. Johnson*, 660 S.E.2d 550, 556 (N.C. Ct. App. 2008) (quoting *Scott v. Darden*, 130 S.E.2d 42, 45 (N.C. 1963)).

54. To succeed on a last clear chance argument, a plaintiff must prove:

(1) that the plaintiff negligently placed himself in a position of helpless peril; (2) that the defendant knew or, by the exercise of reasonable care, should have discovered the plaintiff's perilous position and his incapacity to escape from it; (3) that the defendant had the time and ability to avoid the injury by the exercise of reasonable care; (4) that the defendant negligently failed to use available time and means to avoid injury to the plaintiff; and (5) as a result, the plaintiff was injured.⁶⁹

B. Application of the Law to the Facts of This Case

1. Negligence

55. Plaintiffs have not met their burden of proving that the Government was negligent. Plaintiffs present several theories of negligence. Each is addressed in turn.

a. Heading of 360

56. First, Plaintiffs argue that Kendall Garland's decision to give Michael Apfelbaum a heading of 360 at approximately 1552:52Z constituted negligence. Specifically, Plaintiffs claim that, at the time, Apfelbaum would have safely landed had he been told to simply alter his course by a few degrees rather than make a wider turn at a heading of 360. Plaintiffs allege that assigning this heading breached Garland's duty under 7110.65 to assign headings that permit a final approach course interception on a track at an angle that does not exceed 30

⁶⁹ *Id.* (quoting *Parker v. Willis*, 606 S.E.2d 184, 186 (N.C. Ct. App. 2004)).

degrees, as well as Garland's general duty of care to not issue warnings that a reasonable air-traffic controller would not issue.

57. Plaintiffs have not introduced sufficient evidence to show breach of Garland's duty under Order 7110.65. Plaintiffs' expert witnesses (and Garland himself) acknowledged that Garland's decision to issue a 360 heading at the time he did would have violated Order 7110.65 had Garland subsequently instructed Apfelbaum to turn onto the localizer for a final approach. But Garland did not instruct Apfelbaum to make a final approach, nor did he respond to Apfelbaum's request for a vector for final approach. Instead, he checked in with Apfelbaum to ask him if he was established on the localizer and after determining that he was not, gave him a new heading.

58. Plaintiffs have also not proven that Garland breached his duty to not issue warnings that a reasonable air-traffic controller would not issue. Plaintiffs' expert testimony largely focused on the reasonableness of Garland's directive in light of Order 7110.65's requirement regarding localizer interception angles. As a result, it does not establish that a reasonable controller in Garland's position would have necessarily given Apfelbaum a different heading. Additionally, there is no evidence showing that Garland's decision to issue this heading was inherently unsafe. While it might have been more expedient for Garland to have kept Apfelbaum on a relatively straight course, the Court cannot say that Garland's decision to not do so was unreasonable.

59. The Court notes that the evidence does not support a finding that Garland could have or should have been aware that Apfelbaum was facing an emergency at the time Garland gave Apfelbaum a heading of 360. Up to that point, aside from Apfelbaum asking Garland if he liked Apfelbaum's route of flight, none of the communications between Garland and Apfelbaum suggest that Apfelbaum was distressed or in any sort of danger. Consequently, the Court cannot conclude that Garland's decision to issue this heading, given the circumstances, was negligent.

60. In any event, Plaintiffs have not shown that Garland's decision to give Apfelbaum this heading proximately caused the crash. Plaintiffs' primary theory on this point was that issuing this heading caused Apfelbaum to become spatially disoriented which then resulted in Apfelbaum losing control and crashing. They contend that, had Garland not given this heading (and instead directed Apfelbaum to make a small adjustment), Apfelbaum would not have become disoriented and would have landed safely, thus preventing the crash.

61. But Plaintiffs have not offered evidence showing that Apfelbaum was in fact spatially disoriented or that a turn to 360, on its own, would have caused Apfelbaum (or any other pilot) to become spatially disoriented. While it is certainly possible that Apfelbaum was spatially disoriented, Plaintiffs have not affirmatively established that this was the case. Any determination that Apfelbaum was spatially disoriented would therefore be based on speculation and conjecture.

The Court does not believe this sufficient to satisfy Plaintiffs' burden of proof on causation.

62. Consequently, Plaintiffs cannot succeed on their first theory of negligence.

b. Failure to Declare an Emergency

63. Second, Plaintiffs claim that Garland negligently failed to treat the situation with Apfelbaum as an emergency. Plaintiffs argue that Garland breached his duty under Order 7110.65 to be aware of emergencies even where specific emergency codes ("mayday" and "pan-pan") are not used, and to respond accordingly. In light of Apfelbaum's inability to maintain his heading and altitude and his statements that he was "close to" and "almost disorientated," Plaintiffs assert that Garland should have treated the situation as an emergency and directed Apfelbaum to level his wings and climb. They cite both Order 7110.65 and Garland's generalized duty to monitor as establishing Garland's duty to inquire as to Apfelbaum's situation and take steps to rectify it.

64. The Court determines that Order 7110.65 does not create a duty of care to investigate Apfelbaum's situation or to order Apfelbaum to level his wings and climb. Order 7110.65 section 10-1-1 provides only that, once an air-traffic controller has *already determined* that an emergency exists, the controller must "select and pursue a course of action which appears to be most appropriate under the circumstances." This clearly does not require any specific course of action in

the event of an emergency.⁷⁰ Accordingly, the Court cannot find that Garland breached a federal duty of care that was not specifically prescribed.

65. Plaintiffs have also failed to show that Garland breached his general duty of care. As discussed above, courts have found breach where air-traffic controllers failed to warn pilots of dangers that the controller knew or reasonably could have known existed. However, courts have also recognized that air-traffic controllers are not expected to know what occurs inside the cockpit, and that pilots have a concurrent duty of care regarding an aircraft's safety. Because Garland could not have known what was occurring within the Bonanza, and because Apfelbaum could have easily informed Garland of what he was experiencing, the Court cannot hold that Garland was negligent in failing to inquire specifically about Apfelbaum's status.

66. Moreover, even if breach were established, Plaintiffs would not be able to satisfy causation. Plaintiffs have introduced no evidence that Garland's failure to declare an emergency caused Apfelbaum to crash or caused him to become spatially or otherwise disoriented. Plaintiffs have not factually developed what it means for an air-traffic controller to designate a situation an emergency (are more resources available, is a supervisor called, etc.). It is thus not possible

⁷⁰ In any event, Garland had not deemed the situation an emergency, thus triggering application of Order 7110.65.

for the Court to determine how not declaring an emergency made the situation worse.

67. Conversely, the lack of evidence on this issue precludes the Court from concluding that declaring an emergency would have necessarily made the situation better. Plaintiffs repeatedly assert that all Garland needed to do was direct Apfelbaum to level his wings and climb; however, they do not explain why Garland would have been more or less likely to do that if the situation were deemed an emergency. Further, Plaintiffs offer no evidence showing that Apfelbaum would have actually been able to level his wings and climb had he been directed to do so. The Court accordingly cannot hold that causation has been satisfied.

c. No-Gyro Turn

68. Third, Plaintiffs assert that Garland's decision to offer Apfelbaum a no-gyro turn, as well as his execution of the turn, constitutes negligence. Plaintiffs cite both Order 7110.65 and Garland's general duty of care. Plaintiffs argue that Garland's offer of a no-gyro turn was inappropriate because such turns are difficult to maneuver, are generally only used where vacuum-pump failure is involved, and can exacerbate spatial disorientation. This theory is built in large part on Plaintiffs' assertion that Garland should have been aware that Apfelbaum was spatially disoriented.

69. Plaintiffs' theory that Garland improperly offered a no-gyro turn fails on breach because it was not unreasonable for Garland to offer Apfelbaum a no-gyro turn. Immediately prior to asking Apfelbaum if he could accept a no-gyro turn, Garland was told by Apfelbaum that Apfelbaum needed to descend because he was almost disoriented. Garland thus testified that he was primarily focused on giving Apfelbaum directions that could help get him established on the localizer. While such a turn may have been inappropriate had Garland been aware that the turn might put Apfelbaum in danger, there is no evidence showing that that was the case. Further, the Court notes that Garland did not *order* Apfelbaum to make a no-gyro turn, but simply asked if he could accept one.

70. By way of comparison, Plaintiffs' theory that Garland improperly executed the no-gyro turn succeeds on breach but fails on causation. Garland admits, and expert testimony established, that Garland violated the clear procedures of Order 7110.65 which require that a controller executing a no-gyro turn tell a pilot when to both start *and stop* the turn. Because Garland did not inform Apfelbaum when to stop, he plainly breached the duty of care set forth in Order 7110.65.

71. However, Plaintiffs have not shown that Garland's breach of Order 7110.65 in executing the no-gyro turn proximately caused the crash. As Garland convincingly testified, he did not instruct Apfelbaum to stop turning because Apfelbaum had already stopped and was flying in the direction that Garland had

initially wanted him to fly. Further, because Plaintiffs offer no evidence on spatial disorientation, the Court cannot conclude that this turn necessarily contributed to or caused spatial disorientation.

d. Radar Relay

72. Fourth, Plaintiffs suggest that Garland may have acted negligently by failing to zoom his radar relay beyond the minimum zoom required. However, beyond referencing this fact in their arguments, Plaintiffs have not produced sufficient evidence to show that the zoom Garland used on his radar relay was inappropriate, negligent, or had any causal relationship to Apfelbaum's crash.

e. Failing to Explain His Instructions

73. Fifth, Plaintiffs suggest that Garland acted negligently by failing to explain the purposes of the vectors and headings he gave to Apfelbaum. Plaintiffs claim that Garland made Apfelbaum more confused by not explaining the purpose of his vectors to Apfelbaum. They also have introduced some expert testimony tending to support this assertion and further establishing that it is generally helpful to explain why a certain heading has been given.

74. Nevertheless, no evidence has been presented showing that failing to explain instructions in detail constitutes negligence or is unreasonable. While it may have been more helpful for Garland to explain why he was giving Apfelbaum certain headings, the Court cannot say his decision to not do so was unreasonable or a breach of his general duty of care.

2. Contributory Negligence

75. Finally, the Court concludes that Apfelbaum was contributorily negligent. Evidence adduced by Plaintiffs' experts show that Apfelbaum was, based on his logbooks, not current to fly in instrument conditions. As this is required by federal regulations, Apfelbaum's decision to fly in instrument conditions without being current constituted a breach of his duty of care. Given that Apfelbaum, as the pilot in command of the Bonanza, was ultimately responsible for the operation of his aircraft, it can also be reasonably inferred that his decision to fly in instrument conditions under these circumstances contributed, at least in part, to the crash.

76. The last clear chance doctrine also does not preclude application of contributory negligence. As discussed above, there is no evidence showing that Garland would have been able to avoid the plane crash. While Plaintiffs maintain that Garland could have and should have simply directed Apfelbaum to level his wings and fly, they did not show that Apfelbaum would have been able to do that, or whether that instruction would have necessarily prevented the crash. Moreover, the assertion that Apfelbaum would have been easily able to follow these instructions is undercut by the fact that when Garland did eventually tell Apfelbaum that he would clear air-space at a higher altitude to allow Apfelbaum to fly into the clouds, Apfelbaum was unable to comply.

77. For these reasons, the Court determines that Apfelbaum was contributorily negligent and that any recovery he might have been entitled to is barred.

III. CONCLUSION

78. Plaintiffs have failed to present sufficient evidence to bear their burden of proof on the question of liability. Accordingly, the Court concludes it appropriate to enter judgment in favor of the Defendant pursuant to Rule 52(c).

BY THE COURT:

s/ Matthew W. Brann

Matthew W. Brann
United States District Judge